

# BOXPRES PLUS KIT BOXPRES PLUS

- CONNECTION TO A BMS SYSTEM VIA RTU MODBUS
- RIGID FRAME AND VANDAL-PROOF METAL CASING
- ALARM SYSTEM IN THE EVENT OF A FIRE
- CM-SMART: EXTERNAL CONTROL PANEL FOR FIREFIGHTERS



PRESSURISATION CONTROL SYSTEMS  
FOR STAIRCASES, FIRE-FIGHTING  
LOBBIES AND ESCAPE ROUTES

# BOXPRES PLUS AND KIT BOXPRES PLUS

**The staircases and escape routes pressurisation system permits automatic control of the flow rate as well as maintaining a differential pressure of 50Pa in accordance with standard UNE EN 12101-6.**

The equipment in the BOXPRES PLUS is carefully calibrated to guarantee that the system works accurately and quickly in the event of a fire and ensures that it remains stable.



The equipment is has everything needed to control the staircase overpressure . Only the power supply, the fan and fire signal need to be connected.

To make installation simple, the KIT BOXPRES PLUS is supplied with the appropriate fan for the duty required.



## Options depending on project requirements

Different solutions are available to precisely adapt the equipment to the project needs:

### BOXPRESPLUS

Ideal unit for overpressure solutions in staircases and evacuation routes.

### BOXPRESPLUS II

Unit designed for systems that require a standby fan, with automatic switching in the event of the main fan failure.

#### Accessories

#### CM-SMART External control panel for firefighters

The CM-SMART indicates the system status and provides firefighters with the option of manually turning the system on or off via its selector switch.

We recommend that this panel be installed at the main entry point to the protected area.



## Main characteristics of the BOXPRES PLUS

Connection to a BMS system via **RTU Modbus**.

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Once the system is activated by a fire alarm, it will remain **active**, even when the activation signal is interrupted.

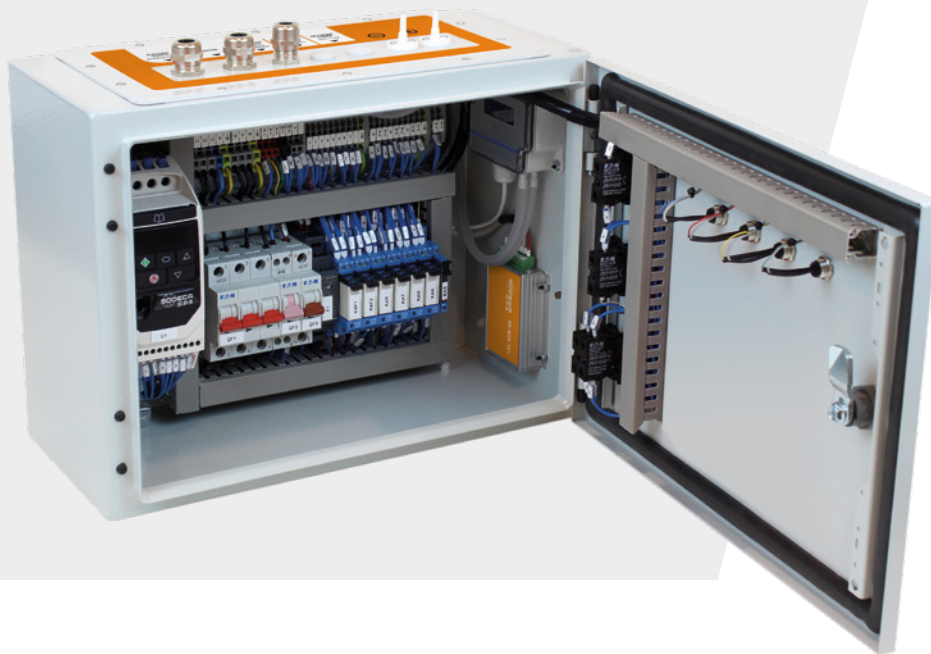
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Strong, rigid boxes with vandal-proof **metal casing** and IP66 rating.

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**Safe operating protocol** in the event of a pressure probe failure.

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**TEST** selector to check proper operation during maintenance.

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Operating, alarm and fire activation **LED indicators**.

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**CM-SMART** external control panel for firefighters.

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**Compatibility** with the firefighter control panel.

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**Selector switch** for the exclusive use of firefighters 0-auto-manual.

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**Speed control** programmed for 50 Pa, differential pressure probe and magnetic thermal switch; all precisely calibrated and ready for AC/ EC motors.

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# KIT BOXPRES PLUS



**The staircases and escape routes pressurisation system permits automatic control of the flow rate as well as maintaining a differential pressure of 50Pa in accordance with standard UNE EN 12101-6**




The correct operation of the pressurisation systems depends not only on their sound design, but also on the correct regulation performed by the system. For this reason, it is extremely important to have calibrated, high precision regulation elements that will permit both situations present in the event of a fire to be maintained simultaneously, quickly and stably.

### KIT BOXPRES PLUS

Staircase overpressure kit comprised of a control panel (BOXPRES PLUS) and an impulsion unit (CJHCH or CJBD), for pressurising staircases and escape routes.

### KIT BOXPRES PLUS II

Overpressure kit with standby fan comprised of a control panel (BOXPRES PLUS II) with a built-in automatic switching system that maintains the overpressure in the event of the main fan failure.

-  • Easy to install
- A compact, autonomous solution
- Preventive maintenance
- Easy start-up
- Safe, functional installation



### CM-SMART External control panel for firefighters

The CM-SMART indicates the system status and provides firefighters with the option of manually turning the system on or off via its selector switch. We recommend that this panel be installed at the main entry point to the protected area.

This unit is not included in the KIT BOXPRES PLUS.

The BOXPRES PLUS and BOXPRES PLUS II models are compatible with CM-SMART.

## Order code

<b>KIT BOXPRES PLUS</b>	-	<b>7100</b>	-	<b>230</b>
↓		↓		↓
KIT BOXPRES PLUS: Overpressure unit KIT BOXPRES PLUS II: Overpressure unit with standby fan		Maximum flow rate (m <sup>3</sup> /h)		230: Single-phase 200 to 240 V 50/60 Hz input 380: Three-phase 380 to 480 V 50/60 Hz input

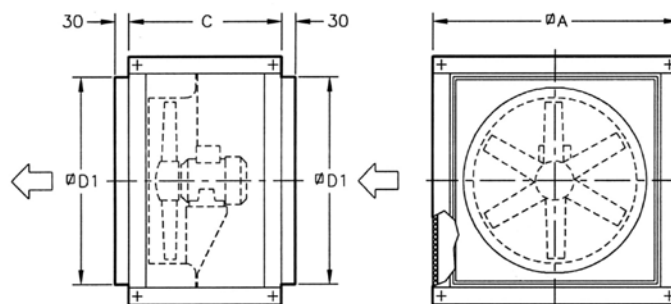
## Technical characteristics

Model	Power (kW)	Power supply (V/Hz)	Output (V)	Maximum flow rate (m <sup>3</sup> /h)	Impulsion unit
KIT BOXPRES PLUS-2880 - 230	0.37	200 to 240 V 50/60 Hz	230 V 50/60 Hz	2880	CJBD-2828-4M 1/2
KIT BOXPRES PLUS-7100 - 230	0.37	200 to 240 V 50/60 Hz	230 V 50/60 Hz	7100	CJHCH-45-4T-0.5 IE3
KIT BOXPRES PLUS-7800 - 230	1.10	200 to 240 V 50/60 Hz	230 V 50/60 Hz	7800	CJBD-3333-6T 1 1/2
KIT BOXPRES PLUS-12900 - 230	0.75	200 to 240 V 50/60 Hz	230 V 50/60 Hz	12900	CJHCH-56-4T-1 IE3
KIT BOXPRES PLUS-17000 - 230	1.10	200 to 240 V 50/60 Hz	230 V 50/60 Hz	17000	CJHCH-63-4T-1.5 IE3
KIT BOXPRES PLUS-7800 - 400	1.10	380 to 480 V 50/60 Hz	400 V 50/60 Hz	7800	CJBD-3333-6T-1.5 IE3
KIT BOXPRES PLUS-12900 - 400	0.75	380 to 480 V 50/60 Hz	400 V 50/60 Hz	12900	CJHCH-56-4T-1 IE3
KIT BOXPRES PLUS-17000 - 400	1.10	380 to 480 V 50/60 Hz	400 V 50/60 Hz	17000	CJHCH-63-4T-1.5 IE3
KIT BOXPRES PLUS-21100 - 400	1.50	380 to 480 V 50/60 Hz	400 V 50/60 Hz	22100	CJHCH-71-4T-2 IE3

\*The output power is reduced by 20% when the equipment is operating in the lower power supply voltage range. The same models may be supplied with the KIT BOXPRES PLUS II for standby fan (a second impulsion unit is added that is equivalent to that of the KIT BOXPRES PLUS).

## Dimensions mm

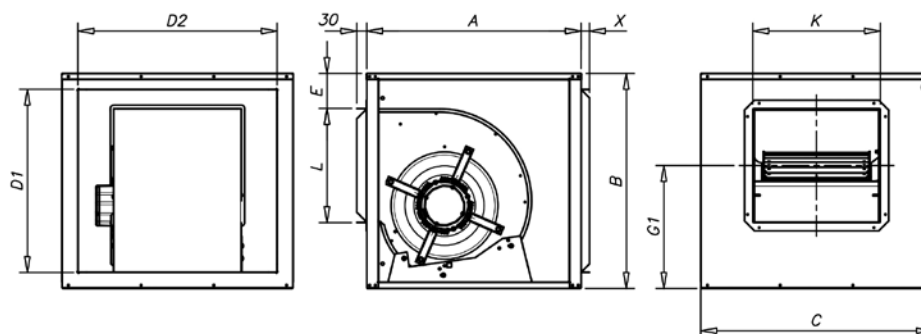
### CJHCH



Model	ØA	C	ØD1
CJHCH-45	700	550	556
CJHCH-56/63	825	550	690
CJHCH-71	1000	650	850

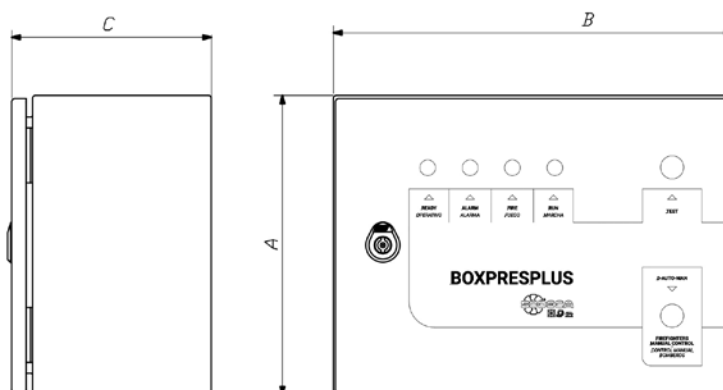
## Dimensions mm

### CJBD



Model	Inches	A	B	C	E	D1	D2	G1	L	K	X
CJBD-2828	10/10	550	575	600	107	479	504	322	292	326	25
CJBD-3333	12/12	650	650	700	106	554	604	372.5	345	387	25

### BOXPRES PLUS



Size	A	B	C
1	300	400	200
2	400	500	250
3	400	600	250
4	500	700	250

# BOXPRES PLUS CONTROL PANELS



## The BOXPRES PLUS control panel includes:

- Variable frequency drive programmed at 50 Pa and highly accurate differential pressure probe.
- External connection for the control panel to be used exclusively by firefighters.
- Magnetic thermal switch.
- Status indicator lamp: Ready, Alarm, Fire and Run.
- Built-in control panel with TEST selector for maintenance and selector to be used exclusively by firefighters 0-AUTO-MANUAL.
- Operating procedures in safe mode in the case of failure of the differential pressure probe and automatic reset of the system in case of failure.
- Connection to BMS systems via RTU Modbus for monitoring the equipment.
- Remains operational once activated by the fire alarm, even when the activation signal is interrupted.
- Metal casing with lock with key and with IP66 protection.
- Capable of managing asynchronous motors, IPM or RM.
- Ready to operate and perform its function of pressure control.
- Only the power supply, the impulsion fan and the fire signal need to be connected.
- Different input voltage ranges and power on demand.

## Order code

<b>BOXPRES PLUS</b>	—	<b>1.1</b>	—	<b>230</b>	—	<b>M</b>
↓		↓		↓		↓
BOXPRES PLUS: Control panel for a fan BOXPRES PLUS II: Control panel with standby fan		Power (kW)		Input voltage		M: Single-phase input T: Three-phase input



## Technical characteristics and dimensions

### BOXPRES PLUS

Model	Power (kW)	Power supply (V/Hz)	Output (V)	Max. output current (A)	Size	Measurements (length x width x depth)	Weight (kg)
BOXPRES PLUS-0.37-230V 50/60Hz-M-T	0.37	200 to 240 V 50/60 Hz	230 V 50/60 Hz	2.3	1	300 x 400 x 200	11
BOXPRES PLUS-0.75-230V 50/60Hz-M-T	0.75	200 to 240 V 50/60 Hz	230 V 50/60 Hz	4.3	1	300 x 400 x 200	11
BOXPRES PLUS-1.5-230V 50/60Hz-M-T	1.50	200 to 240 V 50/60 Hz	230 V 50/60 Hz	7.0	1	300 x 400 x 200	11
BOXPRES PLUS-0.75-400V 50/60Hz-T-T	0.75	380 to 480 V 50/60 Hz	400 V 50/60 Hz	2.2	1	300 x 400 x 200	11
BOXPRES PLUS-1.5-400V 50/60Hz-T-T	1.50	380 to 480 V 50/60 Hz	400 V 50/60 Hz	4.1	1	300 x 400 x 200	11
BOXPRES PLUS-2.2-400V 50/60Hz-T-T	2.20	380 to 480 V 50/60 Hz	400 V 50/60 Hz	5.8	2	400 x 500 x 250	18
BOXPRES PLUS-4-400V 50/60Hz-T-T	4.00	380 to 480 V 50/60 Hz	400 V 50/60 Hz	9.5	2	400 x 500 x 250	18
BOXPRES PLUS-5.5-400V 50/60Hz-T-T	5.50	380 to 480 V 50/60 Hz	400 V 50/60 Hz	14	3	400 x 600 x 250	21
BOXPRES PLUS-7.5-400V 50/60Hz-T-T	7.50	380 to 480 V 50/60 Hz	400 V 50/60 Hz	18	3	400 x 600 x 250	21
BOXPRES PLUS-11-400V 50/60Hz-T-T	11.00	380 to 480 V 50/60 Hz	400 V 50/60 Hz	24	3	400 x 600 x 250	21

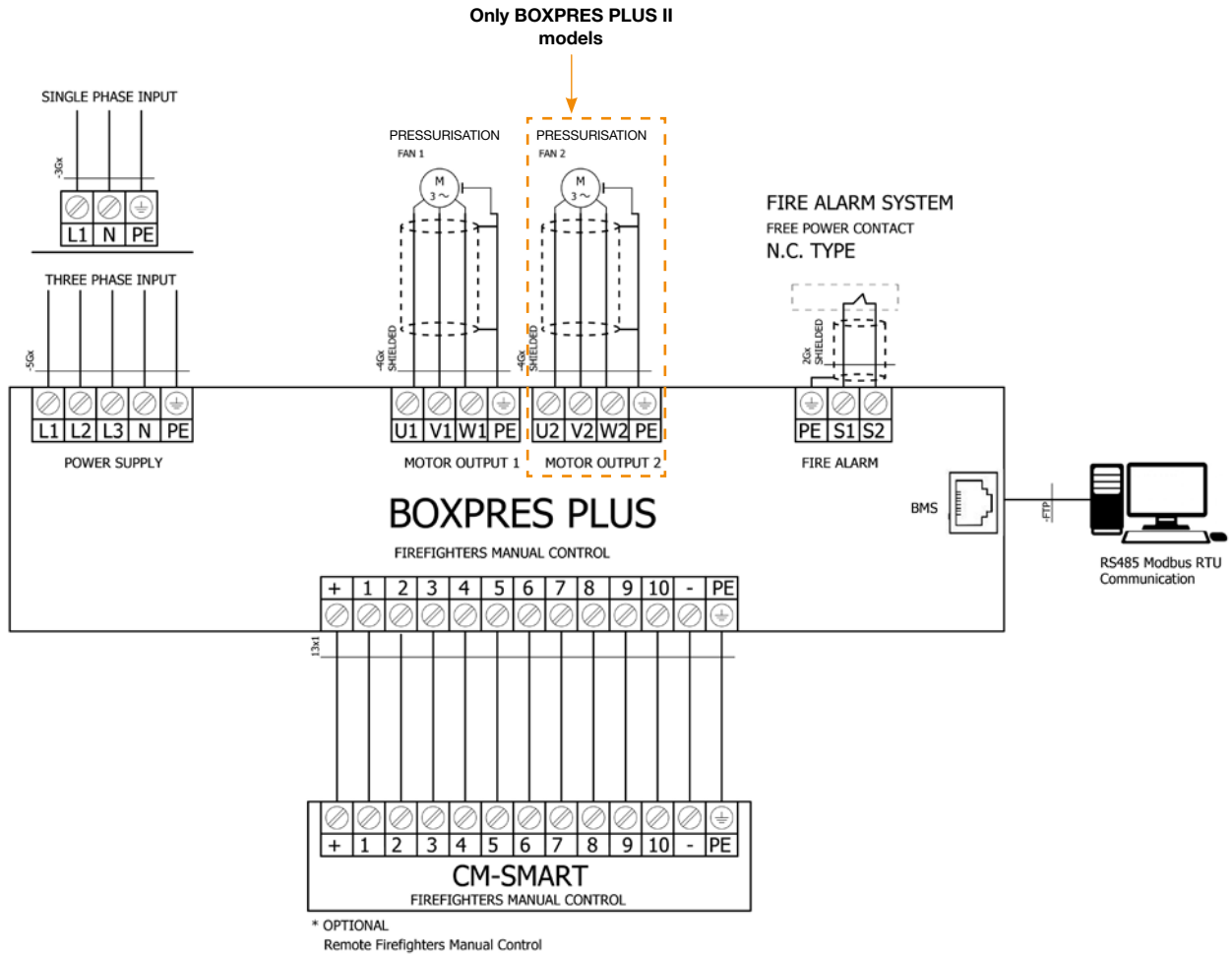
### BOXPRES PLUS II

For systems with a standby fan. The fans never operate simultaneously.

Model	Power (kW)	Power supply (V/Hz)	Output (V)	Max. output current (A)	Size	Measurements (length x width x depth)	Weight (kg)
BOXPRES PLUS II-0.37-230V 50/60Hz-M-T	0.37	200 to 240 V 50/60 Hz	230 V 50/60 Hz	2.3	2	400 x 500 x 250	18
BOXPRES PLUS II-0.75-230V 50/60Hz-M-T	0.75	200 to 240 V 50/60 Hz	230 V 50/60 Hz	4.3	2	400 x 500 x 250	18
BOXPRES PLUS II-1.5-230V 50/60Hz-M-T	1.50	200 to 240 V 50/60 Hz	230 V 50/60 Hz	7.0	2	400 x 500 x 250	18
BOXPRES PLUS II-0.75-400V 50/60Hz-T-T	0.75	380 to 480 V 50/60 Hz	400 V 50/60 Hz	2.2	2	400 x 500 x 250	18
BOXPRES PLUS II-1.5-400V 50/60Hz-T-T	1.50	380 to 480 V 50/60 Hz	400 V 50/60 Hz	4.1	2	400 x 500 x 250	18
BOXPRES PLUS II-2.2-400V 50/60Hz-T-T	2.20	380 to 480 V 50/60 Hz	400 V 50/60 Hz	5.8	3	400 x 600 x 250	20
BOXPRES PLUS II-4-400V 50/60Hz-T-T	4.00	380 to 480 V 50/60 Hz	400 V 50/60 Hz	9.5	3	400 x 600 x 250	20
BOXPRES PLUS II-5.5-400V 50/60Hz-T-T	5.50	380 to 480 V 50/60 Hz	400 V 50/60 Hz	14	4	500 x 700 x 250	28
BOXPRES PLUS II-7.5-400V 50/60Hz-T-T	7.50	380 to 480 V 50/60 Hz	400 V 50/60 Hz	18	4	500 x 700 x 250	28
BOXPRES PLUS II-11-400V 50/60Hz-T-T	11.00	380 to 480 V 50/60 Hz	400 V 50/60 Hz	24	4	500 x 700 x 250	28

## Connections

\*All connections are made at the top section of the panel.

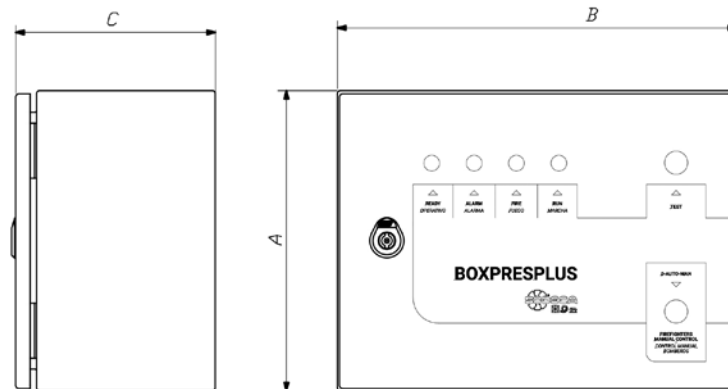


## Accessories



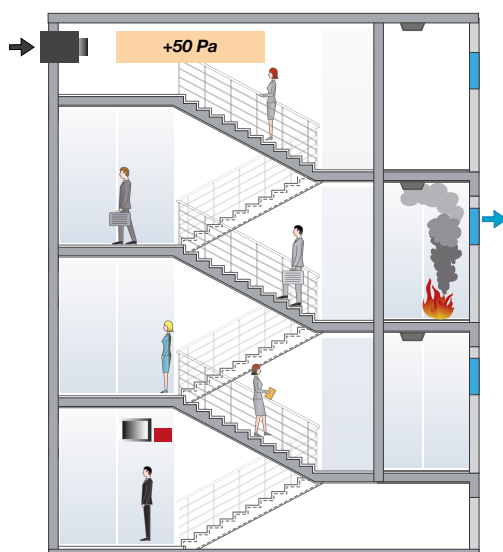
CM-SMART

## Dimensions mm



Size	A	B	C
1	300	400	200
2	400	500	250
3	400	600	250
4	500	700	250

## Example of application



### Overpressure smoke control method

This system uses pressurisation by injecting air into spaces that are used as escape routes in the event of a fire, including stairwells, corridors, passageways, lifts, etc., especially in tall buildings with high occupancy.

The method is based on using air speed and over pressure to create a barrier, preventing smoke from entering escape routes.

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